

ACME Response to the Ofqual Call for Views on Qualification support material and services

The Advisory Committee on Mathematics Education (ACME www.acme-uk.org) is an independent committee, based at the Royal Society and operating under its auspices, that aims to influence Government strategy and policies with a view to improving the outcomes of mathematics teaching and learning in England and so secure a mathematically enabled population. The response to this consultation draws on recent ACME policy statements and has been additionally informed by the ACME Outer Circle, a group assembled to encompass a breadth of knowledge, support and influence which we consult on key issues. Our response is focused on mathematics.

Please note that ACME is unable to provide a detailed response in the time allocated. We welcome the move towards developing an overview of the quality of materials to support the teaching of mathematics. However, the timescale prevents us from producing a fully-informed response which addresses the issues we wish to raise.

ACME has referred in the past to the quality of textbooks in general, and those that are related to particular awarding bodies in particular (see ACME's response to the to the Education Select Committee Inquiry into ['How should Examinations for 15-19 year olds in England be run?'](#) and the concerns raised in a [letter to David Willets, Minister of State for Universities and Science.](#)). Many of these issues were also raised in a [letter to Ofqual written in February 2011](#) in response to a consultation on strategic regulation of awarding organisations, and echo [initial concerns raised with Ofqual in February 2010](#). The Institute of Mathematics and its Applications (IMA) has also produced [a position statement on this issue](#), and we note that this has been a matter of interest at the DfE-BIS joint ministerial meetings on STEM.

Our general concerns are as follows:

1. ACME is concerned about the commercial relationships that exist between awarding organisations and publishers, which allow textbooks to be sold which are publicised as having been written or endorsed by the chief examiner. Setting exams should be a position of trust not a commercial opportunity. The use of examination boards' logos to advertise books also places them at an unfair competitive advantage against other, possibly better books.
2. Awarding organisation logo endorsements or chief examiner authorship encourage schools to make purchasing decisions on the basis of author affiliation rather than the quality of the resource itself, in terms of the teaching and learning it supports. Endorsed textbooks are frequently seen as the safe option by schools. This is often not in the best interests of the learners, because such texts can be too closely aligned with the assessment of the syllabus with a focus on passing the examination, rather than

encouraging exploration of related topics and applications, full coverage of the curriculum and the development of mathematical thinking.

3. ACME recommends that awarding organisations are prevented from using their names or logos on textbooks and that publishers do not divulge the fact that an author is also an examiner for a particular awarding organisation.
4. Endorsed textbooks also have to be reprinted (and sometimes changed) when specifications change. This culture of reprinting can lead to further costs for schools and colleges, and, potentially, could compromise the quality of the textbooks and related resources. Timelines during specification development are tight, leading to very short turnarounds for changes to endorsed specifications. Textbooks that have been written specifically to match individual specifications are particularly vulnerable at such times. In contrast, books that have grown from a vision of what mathematics should be taught, and how, are less vulnerable to changes in assessment practice. Such books include those produced by special projects, such as the School Mathematics Project (SMP), Nuffield Mathematics, and Mathematics in Education and Industry (MEI) over longer periods of time. The timescale for revision and implementation of specifications should be lengthened and be related to the review of the National Curriculum on a fixed 10 year cycle.
5. Chief examiners also often run paid-for training sessions for teachers. Although these sessions can be useful, they risk being focused on coaching teachers on how to pass the examination, further encouraging 'teaching to the test' in schools and creating an incentive for the examiner to set questions in such a way as to reward those who attend the course. Such training offered by awarding organisations should be closely monitored against standards for professional development. This could be achieved, possibly through the NCETM CPD accreditation system.
6. The concerns above relate to the system for endorsement and authorship of textbooks. However, attention must also be given to the accuracy and quality of textbooks. This issue goes beyond mere typographical errors; there must be a system of safeguards to ensure that the need for simplification of mathematical concepts to bring them within the reach of schoolchildren does not lead to textbooks containing conceptual inaccuracies or misleading examples. Publishers should guard against this by the use of suitable advisors to read and comment on draft material, and in careful choice of series editors.
7. We also urge Ofqual to ask the British Society for Research into Learning Mathematics (BSRLM) to identify any UK-based research on relations between textbooks and learning. Textbook and materials design is a major international area of research and development, and Ofqual should draw on the full extent of national and international research knowledge available, including international comparisons of textbooks.

We look forward to engaging further with Ofqual on this important issue.



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